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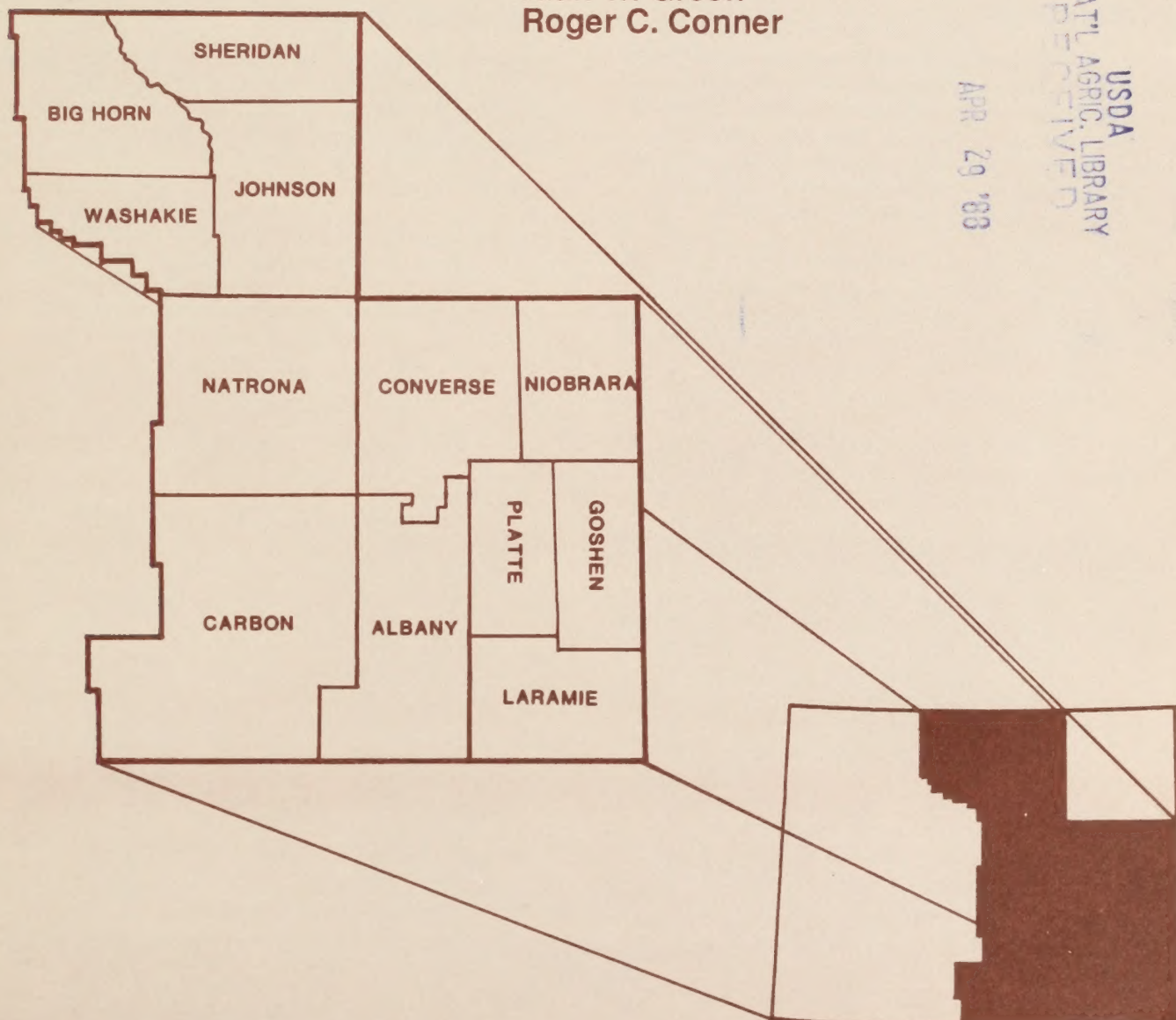


# Timberland and Woodland Resources Outside National Forests in Central and Southeastern Wyoming, 1984

Alan W. Green  
Roger C. Conner

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## PREFACE

Forest Survey is a continuing nationwide undertaking conducted by the Forest Service, U.S. Department of Agriculture, with the primary objective of providing an assessment of the renewable resources on the Nation's forests.

This requires periodic State-by-State resource inventories. Originally, Forest Survey was authorized by the McSweeney-McNary Act of 1928. The current authorization is through the Renewable Resources Research Act of 1978.

The Intermountain Research Station, with headquarters in Ogden, UT, administers the forest resource inventories for the Rocky Mountain States of Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming, western South Dakota, western Texas, and Oklahoma's Panhandle. These inventories provide information on the extent and condition of State and privately owned forest lands, volume of timber, and rates of timber growth and mortality. These data, when combined with similar information for Federal lands, provide a basis for forest policies and programs and for the orderly development and use of the resources.

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## ACKNOWLEDGMENTS

This report is the result of the combined efforts of numerous people on the Forest Survey staff. In addition to the photo interpretation and field crews, several individuals played key roles in the reduction of basic data into information describing the extent, nature, and condition of the forest resources in Wyoming: Dennis Collins supervised the data collection; Sharon Woudenberg and Shirley Waters compiled the data and made summaries; and Susan Brown transformed the data summaries into tables of information. And we extend a special note of gratitude to the private land owners who allowed the field crews access to the sample locations on their properties.

## RESEARCH SUMMARY

Highlights the results of forest inventory of the 12 counties in central and southeastern Wyoming. Presents area, volume, growth, and mortality statistics for both timberland and woodlands outside the National Forests as of 1984.

February 1988

Intermountain Research Station  
324 25th Street  
Ogden, UT 88401



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# Timberland and Woodland Resources Outside National Forests in Central and Southeastern Wyoming, 1984

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## INTRODUCTION

For the latest inventory of the forest land in Wyoming, completed in 1983, the State was divided into three multicounty Sample Areas. Within those Sample Areas all nonreserved forest lands, including woodland, not under the administration of the Forest Service, were inventoried.

Sample Area 2, the subject area of this report, is second largest in geographic area and comprises 12 counties in the central and southeastern portions of the State (fig. 1). Sample Areas 1 and 3 cover the rest of the State and are subjects of separate reports.

**Data in this report pertain only to the lands outside the National Forests.** Data for public lands administered by agencies such as the USDI Bureau of Land Management (BLM) and the State of Wyoming are included along with those for privately owned lands.

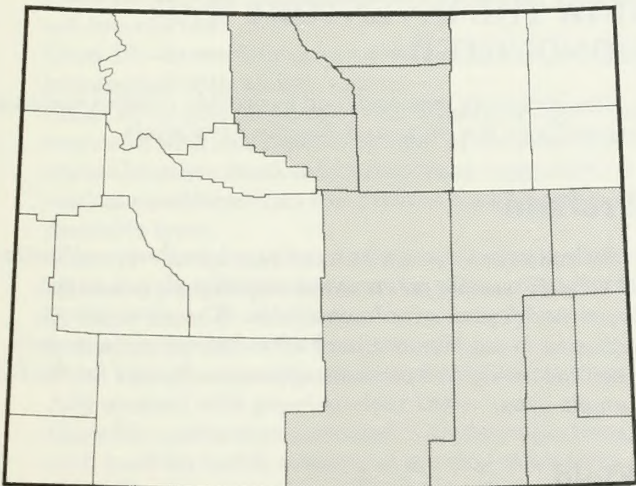


Figure 1—Sample Area 2, central-southeastern Wyoming.

## HIGHLIGHTS

### Area, Forest Type, and Stand Size

Land area outside the National Forests is approximately 25.4 million acres, of which some 1.3 million are forest. Much of the forest land is found in the higher elevations, primarily in the Bighorn, Laramie, and Medicine Bow Mountains (fig. 2). (See table 1 for total land and water area by ownership class.)

Roughly 79 percent of the forest land is timberland and is predominantly privately owned. The 281,000 acres of woodlands are largely on public land.

Three major forest types, ponderosa, lodgepole, and limber pine, make up about three-fourths of the timberland. The ponderosa pine forest type alone accounts for nearly half the timberland.

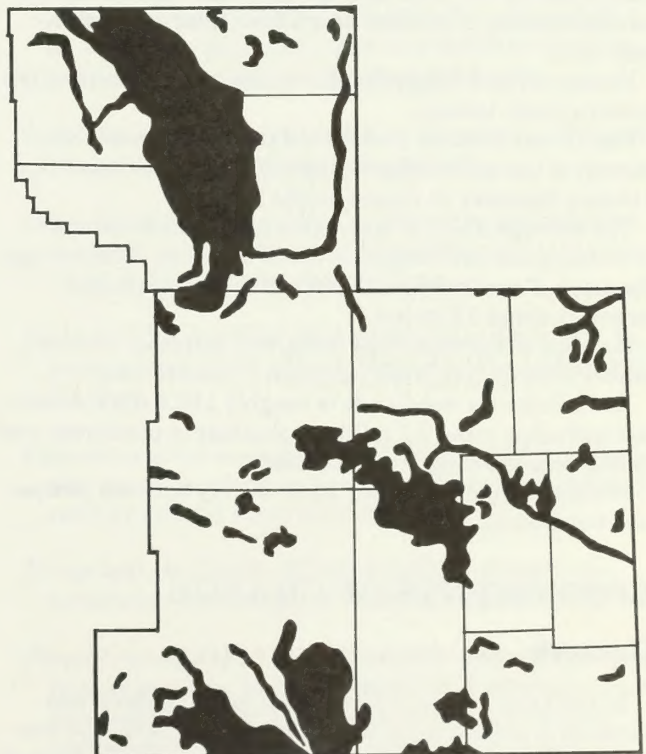


Figure 2—General geographic location of forest land.



Woodlands are predominantly Rocky Mountain juniper (*Juniperus scopulorum*), but about 10 percent are hardwoods, primarily in riparian zones along streams.

Productivity of the timberland is relatively low. Only about 20 percent can produce more than 50 cubic feet of usable wood per acre per year, and 11 percent cannot produce 20 cubic feet per acre.

Roughly 39 percent of the higher site timberland (capable of producing in excess of 50 cubic feet) is occupied by hardwoods. Spruce-fir and lodgepole pine are the major softwood forest types on better sites.

Sawtimber-size stands are the rule, making up 50 percent or more of the timberlands. About 194,000 acres of the timberland (nearly a fifth of the total) are nonstocked.

Privately owned timberland has a higher proportion in sawtimber stands than other publicly owned land.

## Volume

Ponderosa pine (*Pinus ponderosa*) and lodgepole pine (*P. contorta*) account for about 65 percent of the softwood and 57 percent of the growing-stock volume.

Aspen (*Populus tremuloides*) has 9 percent of the total and 76 percent of hardwood growing-stock volume.

Volumes per acre in sawtimber stands tend to be low; 80 percent of the timberland has less than 5,000 board feet (International 1/4-inch rule) per acre, and half the area has less than 1,500 board feet per acre.

The total net volume in timberland trees is slightly more than 1 billion cubic feet, 996 million in growing-stock trees. There are about 58.5 million cubic feet in salvable dead trees.

Some 868 million cubic feet (87 percent of the growing-stock volume) is in softwood species. Softwood sawtimber volume is about 2.8 billion board feet (International 1/4-inch rule).

Ponderosa and lodgepole pine make up 57 percent of the growing-stock volume.

Coniferous trees on timberland tend to be small; 83 percent of the softwood growing-stock trees are less than 9 inches diameter at breast height (d.b.h.).

The average d.b.h. of trees with measurable volume (5 inches d.b.h. and larger) is about 9 inches. The average diameter of sawtimber size trees (9 inches d.b.h. and larger) is about 13 inches.

Because of the small tree sizes, two-thirds of the sawtimber volume is in trees less than 17 inches d.b.h.

Net volume on woodlands is roughly 116.6 million cubic feet including some 3.5 million cubic feet in ponderosa and limber pine growing in woodlands.

Woodland volume is split about evenly between juniper and hardwoods.

## COMPONENTS OF CHANGE

### Growth

In 1983 the net annual growth of growing stock was about 20.5 million cubic feet; sawtimber growth was over 75 million board feet (International 1/4-inch rule). Most of it was in softwood species and over half of it on private land.

Around 89 percent of the growing-stock growth was on trees less than 15 inches d.b.h.

Sawtimber growth was concentrated in trees less than 17 inches d.b.h. (88 percent), and over 70 percent was on trees less than 13 inches d.b.h.

## Mortality

In 1983 approximately 4.1 million cubic feet of growing stock died, 58 percent of it in softwood species. Nearly all the hardwood mortality was in aspen (1.4 million cubic feet).

Ponderosa pine and Douglas-fir (*Pseudotsuga menziesii*) accounted for virtually all of the softwood sawtimber mortality of 6.9 million board feet (International 1/4-inch rule).

The major identifiable causes of mortality were animal, weather, fire, and disease.

## Removals

In 1983 nearly 10 million cubic feet of growing stock and approximately 58 million board feet (International 1/4-inch rule) of sawtimber were removed from timberlands, including the National Forests (McLain 1987). That was about a third of the removals in the State.

Nearly 70 percent came from public lands in Albany and Carbon Counties. Less than 6 percent of the total came from private land.

About 8 million board feet (International 1/4-inch rule) (14 percent of the total) came from lands outside the National Forests, and of that nearly 39 percent came from private land.

Roughly 70 percent of the total removals were lodgepole pine.

## HOW THE INVENTORY WAS CONDUCTED

The inventory was designed to provide reliable statistics primarily at the State and Sample Area levels.

### Prefield

Primary area estimates were based on the classification of 113,079 sample points systematically placed on the latest aerial photographs available. The photo points, adjusted to meet known land areas by owner class, were used to stratify and compute expansion factors for the field sample data.

### Field

Land classification and estimates for forest characteristics and volume were based on observations and measurements recorded at 4,090 ground sample locations, of which 192 were forested. Sample trees on timberland plots were selected using five-point cluster, which included 1/300-acre field radius plots for trees less than 5 inches d.b.h. and variable radius plots (40 BAF) for trees 5 inches or larger.



Sample trees on woodland plots were selected using a  $\frac{1}{5}$ -,  $\frac{1}{10}$ -, or  $\frac{1}{20}$ -acre fixed plot for trees 3 inches diameter at root collar (d.r.c.) and larger. Trees less than 3 inches d.r.c. were tallied on a  $\frac{1}{100}$ -acre subplot.

## Compilation

All photo and field data were entered into a computer for editing, computation, and tabulation. Final estimates from these data were based on statistical summaries, a portion of which is included in this bulletin. Volume and defect were computed using equations developed by Edminster and others (1980, 1981), Kemp (1958), Chojnacky (1985), Meyers (1964), Meyers and Edminster (1972). Defect for woodland species was computed from field observations.

## DATA RELIABILITY

Individual cells within tables should be used with caution. Some are based on small sample sizes, which may result in high sampling errors. The standard error percentages shown in tables 2 and 3 were calculated at the 67 percent confidence level.

## STANDARD FOREST SURVEY TERMINOLOGY

**Acceptable trees**—Growing-stock trees meeting specified standards of size and quality, but not qualifying as desirable trees.

**Area condition class**—A classification of timberland reflecting the degree to which the site is being utilized by growing-stock trees and other conditions affecting current and prospective timber growth (see Stocking):

Class 10—Areas fully stocked with desirable trees and not overstocked.

Class 20—Areas fully stocked with desirable trees, but overstocked with all live trees.

Class 30—Areas medium to fully stocked with desirable trees and with less than 30 percent of the area controlled by other trees and/or inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Class 40—Areas medium to fully stocked with desirable trees and with 30 percent or more of the area controlled by other trees, or conditions that ordinarily prevent occupancy by desirable trees, or both.

Class 50—Areas poorly stocked with desirable trees, but fully stocked with growing-stock trees.

Class 60—Areas poorly stocked with desirable trees, but with medium to full stocking of growing-stock trees.

Class 70—Areas nonstocked or poorly stocked with desirable trees, and poorly stocked with growing-stock trees.

Class 80—Low-risk old-growth stands.

Class 90—High-risk old-growth stands.

**Nonstocked**—Areas less than 10 percent stocked with growing-stock trees.

**Basal area**—The cross-sectional area of a tree expressed in square feet. For timber species the calculation is based on diameter at breast height (d.b.h.); for woodland species it is based on diameter at root collar (d.r.c.).

**Christmas tree grade**—Pinyon species are classified as Christmas trees using the following guidelines:

Premium—Excellent conical form with no gaps in branches and a straight bole.

Standard—Good conical form with small gaps in branches and bole slightly malformed.

Utility—Conical in form with branches missing and bole bent or malformed.

Cull—Not meeting one of the above classifications or over 12 feet in height.

**Cord**—A pile of stacked wood equivalent to 128 cubic feet of wood and air space having standard dimensions of 4 by 4 by 8 feet.

**Cull trees**—Live trees that are unmerchantable now or prospectively (see Rough tree and Rotten tree).

**Cull volume**—Portions of a tree's volume that are not usable for wood products because of rot, missing or dead material, or other cubic-foot defect.

**Deferred forest land**—Forest lands within the National Forest System that are under study for possible inclusion in the Wilderness System.

**Desirable trees**—Growing-stock trees (1) having no serious defect in quality to limit present or prospective use for timber products, (2) of relatively high vigor, and (3) containing no pathogens that may result in death or serious deterioration within the next decade.

**Diameter at breast height (d.b.h.)**—Diameter of the stem measured at 4.5 feet above the ground.

**Diameter at root collar (d.r.c.)**—Diameter equivalent at the point nearest the ground line that represents the basal area of the tree stem or stems.

**Diameter classes**—Tree diameters, either d.b.h. or d.r.c., grouped into 2-inch classes labeled by the midpoint of the class.

**Farmer/rancher-owned lands**—Lands owned by a person who operates a farm or a ranch and who either does the work or directly supervises the work.

**Forest industry lands**—Lands owned by companies or individuals operating a primary wood-processing plant.

**Forest land**—Land at least 10 percent stocked by forest trees of any size, including land that formerly had such tree cover and that will be naturally or artificially regenerated. The minimum area for classification of forest land is 1 acre. Roadside, streamside, and



shelterbelt strips of timber must have a crown width at least 120 feet wide to qualify as forest land. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest if less than 120 feet wide.

*Forest trees*—Woody plants having a well-developed stem or stems, usually more than 12 feet in height at maturity, with a generally well-defined crown.

*Forest type*—A classification of forest land based upon and named for the tree species presently forming a plurality of live-tree stocking.

*Gross annual growth*—The average annual increase in the net volume of trees during a specified period.

*Growing-stock trees*—Live sawtimber trees, poletimber trees, saplings, and seedlings of timber species meeting specified standards of quality and vigor; excludes cull trees.

*Growing-stock volume*—Net cubic-foot volume in live poletimber-size and sawtimber-size growing-stock trees from a 1-foot stump to a minimum 4-inch top (of central stem) outside bark or to the point where the central stem breaks into limbs.

*Growth*—See definition for Net annual growth.

*Hardwood trees*—Dicotyledonous trees, usually broad-leaved and deciduous.

*High-risk old-growth stands*—Timber stands over 100 years old in which the majority of the trees are not expected to survive more than 10 years.

*Indian lands*—Indian lands held in trust by the Federal Government.

*Industrial wood*—All commercial roundwood products except fuelwood.

*Land area*—The area of dry land and land temporarily or partially covered by water such as marshes, swamps, and river flood plains, streams, sloughs, estuaries, and canals less than 120 feet wide; and lakes, reservoirs, and ponds less than 1 acre in size.

*Logging residues*—The unused portions of growing-stock trees cut or killed by logging.

*Low-risk old-growth stands*—Timber stands over 100 years old in which the majority of the trees are expected to survive more than 10 years.

*Miscellaneous Federal lands*—Lands administered by Federal agencies other than the U.S. Department of Agriculture, Forest Service or U.S. Department of the Interior, Bureau of Land Management.

*Mortality*—The net volume of growing-stock trees that have died from natural causes during a specified period.

*National Forest lands*—Public lands administered by the U.S. Department of Agriculture, Forest Service.

*National Resource lands*—Public lands administered by the U.S. Department of the Interior, Bureau of Land Management.

*Net annual growth*—Gross annual growth minus average annual mortality.

*Net dead volume*—Total net volume of dead trees plus the net volume of dead material in live trees.

*Net volume in board feet*—The gross board-foot volume in the sawlog portion of growing-stock trees, less deductions for cull volume.

*Net volume in cubic feet*—Gross cubic-foot volume in the merchantable portion of trees less deductions for cull volume. For timber species, volume is computed for the merchantable stem from a 1-foot stump to a minimum 4-inch top diameter outside bark (d.o.b.), or to the point where the central stem breaks into limbs. For woodland species, volume is computed outside bark (o.b.) for all woody material above d.r.c. that is larger than 1.5 inches d.o.b.

*Nonforest land*—Land that does not currently qualify as forest land.

*Nonindustrial private*—All private ownerships except forest industry.

*Nonstocked areas*—Forest land less than 10 percent stocked with live trees.

*Old-growth stands*—Stands of timber species over 100 years old.

*Other private land*—Privately owned land other than forest industry or farmer-owned.

*Other public land*—Public land administered by agencies other than the U.S. Department of Agriculture, Forest Service.

*Other removals*—The net volume of growing-stock trees removed from the inventory by cultural operations such as timber-stand improvement, by land clearing, and by changes in land use, such as a shift to wilderness.

*Poletimber stands*—Stands at least 10 percent stocked with growing-stock trees, in which half or more of the stocking is sawtimber or poletimber trees or both, with poletimber stocking exceeding that of sawtimber (see definition for Stocking).

*Poletimber trees*—Live trees of timber species at least 5 inches d.b.h. but smaller than sawtimber size.

*Posts*—Juniper and oak species are evaluated for post potential using the following criteria:



**Line post**—A 7-foot minimum length with 5 to 7 inches diameter at the butt, 2.5-inch minimum small end diameter, and reasonably straight and solid.

**Corner post**—An 8-foot minimum length with 7 to 9 inches diameter at the butt, 2.5-inch minimum small end diameter, and reasonably straight and solid.

**Potential growth**—The average net annual cubic-foot growth per acre at culmination of mean annual growth attainable in fully stocked natural stands.

**Primary wood-processing plants**—Plants using roundwood products such as sawlogs, pulpwood bolts, veneer logs, and so forth.

**Productivity class**—A classification of forest land that reflects biological potential. For timberland the potential net annual growth at culmination of mean annual increment in fully stocked natural stands is the index used. For woodland, characteristics that affect the land's ability to produce wood, such as soil depth and aspect, are used. Furthermore, woodland is classified as high site where sustained wood production is likely, or low site where the continuous production of wood is unlikely.

**Removals**—The net volume of growing-stock trees removed from the inventory by harvesting, cultural operations, land clearings, or changes in land use.

**Reserved forest land**—Forest land withdrawn from tree utilization through statute or administrative designation.

**Residues:**

Coarse residues—Plant residues suitable for chipping, such as slabs, edgings, and ends.

Fine residues—Plant residues not suitable for chipping, such as sawdust, shavings, and veneer clippings.

Plant residues—Wood materials from primary manufacturing plants that are not used for any product.

**Rotten tree**—A live poletimber or sawtimber tree with more than 67 percent of its total volume cull (cubic-foot), and with more than half of the cull volume attributable to rotten or missing material.

**Rough tree**—A live poletimber or sawtimber tree with more than 67 percent of its total volume cull (cubic-foot), and with less than half of the cull volume attributable to rotten or missing material.

**Roundwood**—Logs, bolts, or other round sections cut from trees.

**Salvable dead trees**—Standing or down dead trees that are currently merchantable by regional standards.

**Saplings**—Live trees of timber species 1 to 4.9 inches d.b.h., or woodland species 1 to 2.9 inches d.r.c.

**Sapling and seedling stands**—Timberland stands at least 10 percent stocked on which more than half of the stocking is saplings or seedlings or both.

**Sawlog portion**—That part of the bole of sawtimber trees between a 1-foot stump and the sawlog top.

**Sawlog top**—The point on the bole of sawtimber trees above which a sawlog cannot be produced. The minimum sawlog top is 7 inches d.o.b. for softwoods and 9 inches d.o.b. for hardwoods.

**Sawtimber stands**—Stands at least 10 percent stocked with growing-stock trees, with half or more of total stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

**Sawtimber trees**—Live trees of timber species meeting regional size and defect specifications. Softwood trees must be at least 9 inches d.b.h. and hardwood trees 11 inches d.b.h.

**Sawtimber volume**—Net volume in board feet of the sawlog portion of live sawtimber trees.

**Seedlings**—Established live trees of timber species less than 1 inch d.b.h. or woodland species less than 1 inch d.r.c.

**Softwood trees**—Monocotyledonous trees, usually evergreen, having needle or scalelike leaves.

**Standard error**—An expression of the degree of confidence that can be placed on an estimated total or average obtained by statistical sampling methods. Standard errors do not include technique errors that could occur in photo classification of areas, field measurements, or compilation of data.

**Stand-size classes**—A classification of forest land based on the predominant size of trees present (see Sawtimber stands, Poletimber stands, and Sapling and seedling stands).

**State, county, and municipal lands**—Lands administered by States, counties, and local public agencies, or lands leased by these governmental units for more than 50 years.

**Stocking**—An expression of the extent to which growing space is effectively utilized by present or potential growing-stock trees of timber species.

**Timberland**—Forest land where timber species make up at least 10 percent stocking.

**Timber species**—Tree species traditionally used for industrial wood products. In the Rocky Mountain States, these include aspen and cottonwood hardwood species and all softwood species except pinyon and juniper.



*Timber stand improvement*—Treatments such as thinning, pruning, release cutting, girdling, weeding, or poisoning of unwanted trees aimed at improving growing conditions for the remaining trees.

*Upper-stem portion*—That part of the main stem or fork of sawtimber trees above the sawlog top to a minimum top diameter of 4 inches outside bark or to the point where the main stem or fork breaks into limbs.

*Water*—Streams, sloughs, estuaries, and canals more than 120 feet wide, and lakes, reservoirs, and ponds more than 1 acre in size at mean high water level.

*Wilderness*—An area of undeveloped land currently included in the Wilderness System, managed so as to preserve its natural conditions and retain its primeval character and influence.

*Woodland*—Forest land where timber species make up less than 10 percent stocking.

*Woodland species*—Tree species not usually converted into industrial wood products. Common uses are fuelwood, fenceposts, and Christmas trees.

## REFERENCES

- Chojnacky, David C. 1985. Pinyon-juniper volume equations for the central Rocky Mountain States. Res. Pap. INT-339. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 27 p.
- Edminster, Carleton B.; Mowrer, H. Todd; Hinds, Thomas E. 1981. Volume tables and point-sampling factor for aspen in Colorado. Res. Pap. RM-232. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 16 p.
- Edminster, Carleton B.; Beeson, Robert T.; Metcalf, Gary E. 1980. Volume tables and point-sampling factors for ponderosa pine in the Front Range of Colorado. Res. Pap. RM-218. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 14 p.
- Kemp, Paul D. 1958. Volume tables. Unpublished report on file at: U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, UT.
- McLain, William H. 1987. Wyoming and western South Dakota—timber production and mill residues, 1983. Resour. Bull. INT-45. Ogden, UT: U.S. Department of Agriculture, Forest Survey, Intermountain Research Station. 32 p.
- Meyers, Clifford A. 1964. Volume tables and point-sampling factors for lodgepole pine in Colorado and Wyoming. Res. Pap. RM-6. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 16 p.
- Meyers, Clifford A.; Edminster, Carleton B. 1972. Volume tables and point-sampling factors for Engelmann spruce in Colorado and Wyoming. Res. Pap. RM-95. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 23 p.



# FOREST SURVEY TABLES

Table 1--Total land and water area by ownership class in central-southeastern Wyoming, 1984

Ownership class	Area
	- - Acres - -
Land:	
Public:	
National Forest	2,387,826
Other public:	
Bureau of Land Management	6,851,719
National Parks <sup>1</sup>	23,163
Miscellaneous Federal	55,634
State	2,543,546
County and municipal	2,717
Total other public	9,476,779
Total public	11,864,605
Private	15,925,687
Total land area	27,790,292
Census water	161,120
Total land and water <sup>2</sup>	27,951,412

<sup>1</sup>Not included with miscellaneous Federal, a component of other public, for purpose of clarity. These lands, and other reserved lands, are included in tables 1, 2, 4, and 5 only.

<sup>2</sup>U.S. Department of Commerce, Bureau of Census. Area measurement reports, GE-20 No. 1, 22p., 1970, updated to account for changes in inland water estimates obtained from the USDA, Soil Conservation Service National Resource Inventory, 1982.

Table 2--Area of forest land outside National Forests with percent standard error in central-southeastern Wyoming, 1984

Item	Softwoods		Hardwoods		All types	
	Acres	Percent standard error	Acres	Percent standard error	Acres	Percent standard error
Timberland	900,176	±5.2	153,825	±20.8	1,054,001	±4.0
Woodland	253,375	±16.6	27,689	±57.9	281,064	±15.8
Reserved forest land: <sup>1</sup>						
Timberland	2,238		--		2,238	
Woodland	3,200		--		3,200	
Total forest land <sup>2</sup>	1,158,989		181,514		1,340,503	

<sup>1</sup>Reserved land areas are estimated from aerial photos without field verification; therefore, standard errors are not calculated.

<sup>2</sup>On this and all following tables, totals may vary due to rounding.

Table 3--Net volume, net annual growth, and annual mortality of growing stock and sawtimber on timberland outside National Forests with percent standard error in central-southeastern Wyoming

Item	Softwoods		Hardwoods		All species	
	Volume	Percent standard error	Volume	Percent standard error	Volume	Percent standard error
Net volume, 1984:						
Growing stock (M cubic feet)	867,820	±11.9	128,180	±28.3	996,000	±10.8
Sawtimber <sup>1</sup> (M board feet)	2,783,304	±14.4	239,204	±35.4	3,022,508	±13.4
Sawtimber <sup>2</sup> (M board feet)	2,371,262	±14.6	206,091	±35.8	2,577,353	±13.5
Net annual growth, 1983:						
Growing stock (M cubic feet)	18,500	±13.4	1,962	±55.6	20,462	±13.3
Sawtimber <sup>1</sup> (M board feet)	72,045	±17.9	2,998	±90.0	75,043	±17.5
Sawtimber <sup>2</sup> (M board feet)	62,197	±17.7	2,656	±89.2	64,853	±17.3
Annual mortality, 1983:						
Growing stock (M cubic feet)	2,381	±37.1	1,729	±53.3	4,110	±30.6
Sawtimber <sup>1</sup> (M board feet)	6,914	±55.9	2,518	±73.0	9,432	±45.2
Sawtimber <sup>2</sup> (M board feet)	5,894	±56.1	2,166	±73.0	8,060	±45.2

<sup>1</sup>International ¼-inch rule.

<sup>2</sup>Scribner rule.



Table 4--Total land area outside National Forests by major land class and ownership class in central-southeastern Wyoming, 1984

Land class	Ownership class		
	Other public	Private	Total
----- Acres -----			
Timberland:			
Reserved	2,238	--	2,238
Nonreserved	361,427	692,574	1,054,001
Total	363,665	692,574	1,056,239
Woodland:			
Reserved	3,200	--	3,200
Nonreserved	190,807	90,257	281,064
Total	194,007	90,257	284,264
Total forest land:			
Reserved	5,438	--	5,438
Nonreserved	552,234	782,831	1,335,065
Total	557,672	782,831	1,340,503
Nonforest land	8,919,946	15,142,017	24,061,963
Total land area	9,477,618	15,924,848	25,402,466

Table 5--Area of forest land outside National Forests by forest type, ownership class, and land class in central-southeastern Wyoming, 1984

Forest type	Ownership class and land class						
	Other public		Private		All owners		
	Reserved	Nonreserved	Reserved	Nonreserved	Reserved	Nonreserved	Total
----- Acres -----							
Douglas-fir	--	21,111	--	16,015	--	37,126	37,126
Ponderosa pine	--	143,008	--	362,398	--	505,406	505,406
Lodgepole pine	--	56,713	--	79,928	--	136,641	136,641
Limber pine	--	84,074	--	69,749	--	153,823	153,823
Spruce-fir	--	26,086	--	27,454	--	53,540	53,540
Spruce	--	6,959	--	6,681	--	13,640	13,640
Aspen	--	23,476	--	69,161	--	92,637	92,637
Cottonwood	2,238	--	--	61,188	2,238	61,188	63,426
Total timberland	2,238	361,427	--	692,574	2,238	1,054,001	1,056,239
Juniper	3,200	183,175	--	70,200	3,200	253,375	256,575
Mountain brush	--	7,632	--	--	--	7,632	7,632
Riparian	--	--	--	20,057	--	20,057	20,057
Total woodland	3,200	190,807	--	90,257	3,200	281,064	284,264
Total all types	5,438	552,234	--	782,831	5,438	1,335,065	1,340,503

Table 6--Cubic feet of net volume in trees on forest land outside National Forests by species and ownership class in central-southeastern Wyoming, 1984

Species	Ownership class		
	Other public	Private	Total
- - - - Thousand cubic feet - - - -			
Douglas-fir	41,637	48,180	89,817
Ponderosa pine	95,994	232,085	328,079
Lodgepole pine	101,527	138,505	240,032
Limber pine	33,006	49,970	82,976
Subalpine fir	39,667	34,705	74,372
Engelmann spruce	42,557	13,503	56,060
Aspen	32,322	69,128	101,450
Cottonwood	--	26,731	26,731
Total timberland species	386,710	612,807	999,517
Woodland softwoods	45,115	26,927	72,042
Woodland hardwoods	897	61,757	62,654
Total woodland species	46,012	88,684	134,696
Total all species	432,722	701,491	1,134,213

Table 7--Cubic feet of net annual growth in trees on forest land outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- - - - Thousand cubic feet - - - -			
Douglas-fir	1,541	-41	1,500
Ponderosa pine	1,334	3,950	5,284
Lodgepole pine	1,851	4,374	6,225
Limber pine	1,114	585	1,699
Subalpine fir	1,379	993	2,372
Engelmann spruce	1,067	386	1,453
Aspen	357	1,247	1,604
Cottonwood	--	358	358
Total timberland species	8,643	11,852	20,495
Woodland softwoods	509	241	750
Woodland hardwoods	12	1,099	1,111
Total woodland species	521	1,340	1,861
Total all species	9,164	13,192	22,356



Table 8--Cubic feet of annual mortality in trees on forest land outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- - - - - Thousand cubic feet - - - - -			
Douglas-fir	--	564	564
Ponderosa pine	689	254	943
Lodgepole pine	--	149	149
Limber pine	493	156	649
Subalpine fir	--	76	76
Engelmann spruce	--	--	--
Aspen	528	848	1,376
Cottonwood	--	353	353
Total timberland species	1,710	2,400	4,110
Woodland softwoods	--	86	86
Woodland hardwoods	--	--	--
Total woodland species	--	86	86
Total all species	1,710	2,486	4,196

Table 9--Area of timberland outside National Forests by forest type, stand-size class, and productivity class in central-southeastern Wyoming, 1984

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	- - - - - Acres - - - - -				
Douglas-fir:					
Sawtimber	--	--	22,974	--	22,974
Poletimber	--	--	7,193	--	7,193
Sapling and seedling	--	6,959	--	--	6,959
Nonstocked	--	--	--	--	--
Total	--	6,959	30,167	--	37,126
Ponderosa pine:					
Sawtimber	--	--	285,002	31,377	316,379
Poletimber	--	--	38,982	12,492	51,474
Sapling and seedling	--	--	25,599	--	25,599
Nonstocked	--	--	94,925	17,029	111,954
Total	--	--	444,508	60,898	505,406
Lodgepole pine:					
Sawtimber	--	20,320	14,132	--	34,452
Poletimber	--	6,440	73,068	--	79,508
Sapling and seedling	--	8,121	6,439	--	14,560
Nonstocked	--	--	8,121	--	8,121
Total	--	34,881	101,760	--	136,641
Limber pine:					
Sawtimber	--	18,113	26,964	11,999	57,076
Poletimber	--	--	41,167	13,120	54,287
Sapling and seedling	--	--	6,680	--	6,680
Nonstocked	--	--	3,630	32,150	35,780
Total	--	18,113	78,441	57,269	153,823
Spruce-fir:					
Sawtimber	19,647	21,488	--	--	41,135
Poletimber	--	6,681	--	--	6,681
Sapling and seedling	--	5,724	--	--	5,724
Nonstocked	--	--	--	--	--
Total	19,647	33,893	--	--	53,540

(con.)



Table 9 (con.)

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	- - - - - Acres - - - - -				
Spruce:					
Sawtimber	--	13,640	--	--	13,640
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	--	13,640	--	--	13,640
Aspen:					
Sawtimber	--	14,688	--	--	14,688
Poletimber	--	19,244	32,464	--	51,708
Sapling and seedling	--	6,440	19,801	--	26,241
Nonstocked	--	--	--	--	--
Total	--	40,372	52,265	--	92,637
Cottonwood:					
Sawtimber	9,021	4,363	10,087	--	23,471
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	20,043	8,452	9,222	--	37,717
Total	29,064	12,815	19,309	--	61,188
Total:					
Sawtimber	28,668	92,612	359,159	43,376	523,815
Poletimber	--	32,365	192,874	25,612	250,851
Sapling and seedling	--	27,244	58,519	--	85,763
Nonstocked	20,043	8,452	115,898	49,179	193,572
Total	48,711	160,673	726,450	118,167	1,054,001

Table 10--Area of other publicly owned timberland by forest type,  
stand-size class, and productivity class in central-southeastern  
Wyoming, 1984

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	----- Acres -----				
Douglas-fir:					
Sawtimber	--	--	6,959	--	6,959
Poletimber	--	--	7,193	--	7,193
Sapling and seedling	--	6,959	--	--	6,959
Nonstocked	--	--	--	--	--
Total	--	6,959	14,152	--	21,111
Ponderosa pine:					
Sawtimber	--	--	62,448	13,283	75,731
Poletimber	--	--	16,080	6,768	22,848
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	44,429	--	44,429
Total	--	--	122,957	20,051	143,008
Lodgepole pine:					
Sawtimber	--	6,959	--	--	6,959
Poletimber	--	6,440	36,875	--	43,315
Sapling and seedling	--	--	6,439	--	6,439
Nonstocked	--	--	--	--	--
Total	--	13,399	43,314	--	56,713
Limber pine:					
Sawtimber	--	6,439	10,588	3,630	20,657
Poletimber	--	--	33,045	6,440	39,485
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	3,630	20,302	23,932
Total	--	6,439	47,263	30,372	84,074
Spruce-fir:					
Sawtimber	19,647	6,439	--	--	26,086
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	19,647	6,439	--	--	26,086

(con.)



Table 10 (con.)

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	----- Acres -----				
Spruce:					
Sawtimber	--	6,959	--	--	6,959
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	--	6,959	--	--	6,959
Aspen:					
Sawtimber	--	--	--	--	--
Poletimber	--	6,439	4,157	--	10,596
Sapling and seedling	--	6,440	6,440	--	12,880
Nonstocked	--	--	--	--	--
Total	--	12,879	10,597	--	23,476
Cottonwood:					
Sawtimber	--	--	--	--	--
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	--	--	--	--	--
Total:					
Sawtimber	19,647	26,796	79,995	16,913	143,351
Poletimber	--	12,879	97,350	13,208	123,437
Sapling and seedling	--	13,399	12,879	--	26,278
Nonstocked	--	--	48,059	20,302	68,361
Total	19,647	53,074	238,283	50,423	361,427

Table 11--Area of privately owned timberland by forest type,  
stand-size class, and productivity class in central-southeastern  
Wyoming, 1984

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	- - - - - Acres - - - - -				
Douglas-fir:					
Sawtimber	--	--	16,015	--	16,015
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	--	--	16,015	--	16,015
Ponderosa pine:					
Sawtimber	--	--	222,554	18,094	240,648
Poletimber	--	--	22,902	5,724	28,626
Sapling and seedling	--	--	25,599	--	25,599
Nonstocked	--	--	50,496	17,029	67,525
Total	--	--	321,551	40,847	362,398
Lodgepole pine:					
Sawtimber	--	13,361	14,132	--	27,493
Poletimber	--	--	36,193	--	36,193
Sapling and seedling	--	8,121	--	--	8,121
Nonstocked	--	--	8,121	--	8,121
Total	--	21,482	58,446	--	79,928
Limber pine:					
Sawtimber	--	11,674	16,376	8,369	36,419
Poletimber	--	--	8,122	6,680	14,802
Sapling and seedling	--	--	6,680	--	6,680
Nonstocked	--	--	--	11,848	11,848
Total	--	11,674	31,178	26,897	69,749
Spruce-fir:					
Sawtimber	--	15,049	--	--	15,049
Poletimber	--	6,681	--	--	6,681
Sapling and seedling	--	5,724	--	--	5,724
Nonstocked	--	--	--	--	--
Total	--	27,454	--	--	27,454

(con.)



Table 11 (con.)

Forest type and stand-size class	Productivity class				Total acres
	85-119	50-84	20-49	0-19	
	----- Acres -----				
Spruce:					
Sawtimber	--	6,681	--	--	6,681
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	--	--	--	--	--
Total	--	6,681	--	--	6,681
Aspen:					
Sawtimber	--	14,688	--	--	14,688
Poletimber	--	12,805	28,307	--	41,112
Sapling and seedling	--	--	13,361	--	13,361
Nonstocked	--	--	--	--	--
Total	--	27,493	41,668	--	69,161
Cottonwood:					
Sawtimber	9,021	4,363	10,087	--	23,471
Poletimber	--	--	--	--	--
Sapling and seedling	--	--	--	--	--
Nonstocked	20,043	8,452	9,222	--	37,717
Total	29,064	12,815	19,309	--	61,188
Total:					
Sawtimber	9,021	65,816	279,164	26,463	380,464
Poletimber	--	19,486	95,524	12,404	127,414
Sapling and seedling	--	13,845	45,640	--	59,485
Nonstocked	20,043	8,452	67,839	28,877	125,211
Total	29,064	107,599	488,167	67,744	692,574

Table 12--Area of timberland outside National Forests by stand volume and ownership class in central-southeastern Wyoming, 1984

Stand volume per acre <sup>1</sup>	Ownership class		
	Other public	Private	Total
	- - - - - Acres - - - - -		
Less than 1,500 board feet	181,594	351,236	532,830
1,500 to 4,999 board feet	90,566	216,621	307,187
5,000 to 9,999 board feet	75,869	106,363	182,232
10,000 board feet or more	13,398	18,354	31,752
All classes	361,427	692,574	1,054,001

<sup>1</sup>International 4-inch rule.



Table 13--Area of timberland outside National Forests by forest type and area condition class in central-southeastern Wyoming, 1984

Forest type	Area condition class										
	10	20	30	40	50	60	70	80	90	Nonstocked	All classes
	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	22,160	14,967	--	--	--	--	37,127
Ponderosa pine	--	--	8,369	--	45,410	77,634	140,173	--	121,867	111,954	505,407
Lodgepole pine	--	--	--	--	47,904	33,811	12,879	--	14,688	8,121	136,640
Limber pine	--	--	--	19,237	12,879	35,045	54,816	--	15,303	35,780	153,823
Spruce-fir	--	--	--	5,724	26,327	--	--	--	21,489	--	53,540
Spruce	--	--	6,680	--	6,959	--	--	--	--	--	13,639
Aspen	--	--	--	--	19,485	66,471	6,681	--	--	--	92,637
Cottonwood	--	--	--	--	--	9,021	--	--	14,450	37,717	61,188
All types	--	--	15,049	24,961	181,124	236,949	214,549	--	187,797	193,572	1,054,001

Table 14--Number of growing-stock trees on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1984

Species	Diameter class (inches at breast height)																All classes
	1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
	Thousand trees																
Douglas-fir	5,629	3,325	3,035	3,060	1,403	705	228	220	164	69	226	28	54	22	--	18,168	
Ponderosa pine	12,069	8,182	13,097	9,762	5,781	4,040	3,190	1,474	898	603	302	190	40	82	37	59,747	
Lodgepole pine	10,767	20,882	14,245	9,837	4,054	1,893	447	230	123	27	21	--	--	--	--	62,526	
Limber pine	8,263	4,934	8,107	4,130	1,659	833	489	305	124	--	--	--	24	--	--	28,868	
Subalpine fir	14,855	3,840	3,514	2,188	1,949	311	641	123	32	--	111	--	--	--	--	27,564	
Engelmann spruce	4,845	--	232	1,356	673	336	358	83	153	73	--	33	14	12	10	8,178	
Total softwoods	56,428	41,163	42,230	30,333	15,519	8,118	5,353	2,435	1,494	772	660	251	132	116	47	205,051	
Aspen	6,017	6,581	8,743	5,184	2,937	690	515	119	32	26	--	--	--	--	--	30,844	
Cottonwood	--	--	--	244	136	--	225	36	40	76	38	34	78	43	70	1,020	
Total hardwoods	6,017	6,581	8,743	5,428	3,073	690	740	155	72	102	38	34	78	43	70	31,864	
All species	62,445	47,744	50,973	35,761	18,592	8,808	6,093	2,590	1,566	874	698	285	210	159	117	236,915	

Table 15--Number of cull and salvable dead trees on timberland outside  
National Forests by ownership class, and softwoods and hardwoods  
in central-southeastern Wyoming, 1984

Ownership class and species group	Cull trees			Salvable dead trees	Total
	Rough	Rotten	Total		
- - - - - <u>Thousand trees</u> - - - - -					
Other public:					
Softwoods	747	731	1,478	6,750	8,228
Hardwoods	--	--	--	1,092	1,092
Total	747	731	1,478	7,842	9,320
Private:					
Softwoods	344	43	387	4,705	5,092
Hardwoods	418	883	1,301	4,431	5,732
Total	762	926	1,688	9,136	10,824
Total:					
Softwoods	1,091	774	1,865	11,455	13,320
Hardwoods	418	883	1,301	5,523	6,824
Total	1,509	1,657	3,166	16,978	20,144



Table 16--Net volume of growing stock on timberland outside National Forests by ownership class, forest type, and stand-size class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Stand-size class				All classes
		Sawtimber	Poletimber	Sapling/seedling	Nonstocked	
- - - - - Thousand cubic feet - - - - -						
Other public:	Douglas-fir	13,568	17,098	1,442	--	32,108
	Ponderosa pine	83,386	15,561	--	2,623	101,570
	Lodgepole pine	11,010	80,848	260	--	92,118
	Limber pine	18,313	18,825	--	529	37,667
	Spruce-fir	67,403	--	--	--	67,403
	Spruce	29,801	--	--	--	29,801
	Aspen	--	23,873	--	--	23,873
	Cottonwood	--	--	--	--	--
	All types	223,481	156,205	1,702	3,152	384,540
Private:	Douglas-fir	18,471	--	--	--	18,471
	Ponderosa pine	200,483	11,806	7,749	5,825	225,863
	Lodgepole pine	57,756	71,739	3,626	697	133,818
	Limber pine	74,603	2,558	--	--	77,161
	Spruce-fir	31,285	27,182	4,608	--	63,075
	Spruce	3,967	--	--	--	3,967
	Aspen	25,264	36,534	576	--	62,374
	Cottonwood	19,352	--	--	7,379	26,731
	All types	431,181	149,819	16,559	13,901	611,460
Total:	Douglas-fir	32,039	17,098	1,442	--	50,579
	Ponderosa pine	283,869	27,367	7,749	8,448	327,433
	Lodgepole pine	68,766	152,587	3,886	697	225,936
	Limber pine	92,916	21,383	--	529	114,828
	Spruce-fir	98,688	27,182	4,608	--	130,478
	Spruce	33,768	--	--	--	33,768
	Aspen	25,264	60,407	576	--	86,247
	Cottonwood	19,352	--	--	7,379	26,731
	All types	654,662	306,024	18,261	17,053	996,000

Table 17--Net volume of sawtimber (International 4-inch rule) on timberland outside National Forests by ownership class, forest type, and stand-size class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Stand-size class				All classes
		Sawtimber	Poletimber	Sapling/seedling	Nonstocked	
- - - Thousand board feet, International 4-inch rule - - -						
Other public:	Douglas-fir	42,089	29,483	6,291	--	77,863
	Ponderosa pine	301,152	23,759	--	11,437	336,348
	Lodgepole pine	36,446	133,568	--	--	170,014
	Limber pine	53,967	22,570	--	1,569	78,106
	Spruce-fir	260,614	--	--	--	260,614
	Spruce	97,279	--	--	--	97,279
	Aspen	--	38,221	--	--	38,221
	Cottonwood	--	--	--	--	--
	All types	791,547	247,601	6,291	13,006	1,058,445
Private:	Douglas-fir	62,993	--	--	--	62,993
	Ponderosa pine	802,444	20,142	13,146	24,689	860,421
	Lodgepole pine	193,746	86,700	7,476	2,135	290,057
	Limber pine	348,080	3,359	--	--	351,439
	Spruce-fir	106,463	44,711	4,351	--	155,525
	Spruce	19,073	--	--	--	19,073
	Aspen	66,256	45,258	--	--	111,514
	Cottonwood	88,532	--	--	24,509	113,041
	All types	1,687,587	200,170	24,973	51,333	1,964,063
Total:	Douglas-fir	105,082	29,483	6,291	--	140,856
	Ponderosa pine	1,103,596	43,901	13,146	36,126	1,196,769
	Lodgepole pine	230,192	220,268	7,476	2,135	460,071
	Limber pine	402,047	25,929	--	1,569	429,545
	Spruce-fir	367,077	44,711	4,351	--	416,139
	Spruce	116,352	--	--	--	116,352
	Aspen	66,256	83,479	--	--	149,735
	Cottonwood	88,532	--	--	24,509	113,041
	All types	2,479,134	447,771	31,264	64,339	3,022,508



Table 18--Net volume of sawtimber (Scribner rule) on timberland outside National Forests by ownership class, forest type, and stand-size class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Stand-size class				All classes
		Sawtimber	Poletimber	Sapling/seedling	Nonstocked	
- - - - - Thousand board feet, Scribner rule - - - - -						
Other public:	Douglas-fir	35,674	25,507	4,900	--	66,081
	Ponderosa pine	256,710	19,096	--	9,270	285,076
	Lodgepole pine	31,186	114,989	--	--	146,175
	Limber pine	45,577	19,663	--	1,380	66,620
	Spruce-fir	222,736	--	--	--	222,736
	Spruce	81,567	--	--	--	81,567
	Aspen	--	32,490	--	--	32,490
	Cottonwood	--	--	--	--	--
	All types	673,450	211,745	4,900	10,650	900,745
Private:	Douglas-fir	52,660	--	--	--	52,660
	Ponderosa pine	684,931	15,509	10,877	20,740	732,057
	Lodgepole pine	164,888	74,533	6,401	1,899	247,721
	Limber pine	300,079	2,862	--	--	302,941
	Spruce-fir	89,446	38,585	3,720	--	131,751
	Spruce	15,620	--	--	--	15,620
	Aspen	56,304	38,723	--	--	95,027
	Cottonwood	77,538	--	--	21,293	98,831
	All types	1,441,466	170,212	20,998	43,932	1,676,608
Total:	Douglas-fir	88,334	25,507	4,900	--	118,741
	Ponderosa pine	941,641	34,605	10,877	30,010	1,017,133
	Lodgepole pine	196,074	189,522	6,401	1,899	393,896
	Limber pine	345,656	22,525	--	1,380	369,561
	Spruce-fir	312,182	38,585	3,720	--	354,487
	Spruce	97,187	--	--	--	97,187
	Aspen	56,304	71,213	--	--	127,517
	Cottonwood	77,538	--	--	21,293	98,831
	All types	2,114,916	381,957	25,898	54,582	2,577,353

Table 19--Net volume of growing stock on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1984

Species	Ownership class		
	Other public	Private	Total
- - - - Thousand cubic feet - - - -			
Douglas-fir	41,637	48,180	89,817
Ponderosa pine	95,994	230,739	326,733
Lodgepole pine	101,527	138,505	240,032
Limber pine	30,836	49,970	80,806
Subalpine fir	39,667	34,705	74,372
Engelmann spruce	42,557	13,503	56,060
Total softwoods	352,218	515,602	867,820
Aspen	32,322	69,127	101,449
Cottonwood	--	26,731	26,731
Total hardwoods	32,322	95,858	128,180
All species	384,540	611,460	996,000

Table 20--Net volume of sawtimber (International 1/4-inch rule) on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1984

Species	Ownership class		
	Other public	Private	Total
- Thousand board feet, International 1/4-inch rule -			
Douglas-fir	102,331	232,989	335,320
Ponderosa pine	341,264	888,304	1,229,568
Lodgepole pine	218,434	318,124	536,558
Limber pine	44,316	181,663	225,979
Subalpine fir	138,151	100,737	238,888
Engelmann spruce	162,852	54,139	216,991
Total softwoods	1,007,348	1,775,956	2,783,304
Aspen	51,097	75,066	126,163
Cottonwood	--	113,041	113,041
Total hardwoods	51,097	188,107	239,204
All species	1,058,445	1,964,063	3,022,508

Table 21--Net volume of sawtimber (Scribner rule) on timberland  
outside National Forests by species and ownership class  
in central-southeastern Wyoming, 1984

Species	Ownership class		
	Other public	Private	Total
<hr/>			
- - <u>Thousand board feet, Scribner rule</u> - -			
Douglas-fir	87,533	201,411	288,944
Ponderosa pine	289,372	756,096	1,045,468
Lodgepole pine	186,567	271,694	458,261
Limber pine	37,203	154,204	191,407
Subalpine fir	117,742	85,594	203,336
Engelmann spruce	138,893	44,954	183,847
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Total softwoods	857,310	1,513,953	2,371,263
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Aspen	43,435	63,825	107,260
Cottonwood	--	98,830	98,830
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Total hardwoods	43,435	162,655	206,090
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All species	900,745	1,676,608	2,577,353



Table 22--Net volume of growing stock on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1984

Species	Diameter class (inches at breast height)														All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
	Thousand cubic feet														
Douglas-fir	6,118	14,739	11,916	9,761	4,018	6,636	8,477	3,952	14,299	2,396	4,909	2,596	--	--	89,817
Ponderosa pine	20,851	37,595	44,011	43,440	51,677	32,891	28,853	23,706	15,581	13,069	2,646	7,782	4,630	--	326,732
Lodgepole pine	43,337	70,735	56,260	36,305	13,808	10,429	6,472	1,191	1,496	--	--	--	--	--	240,033
Limber pine	10,690	17,020	14,867	8,805	10,644	11,033	4,917	--	--	--	2,830	--	--	--	80,806
Subalpine fir	7,701	12,548	19,790	4,624	16,925	3,686	1,538	--	7,560	--	--	--	--	--	74,372
Engelmann spruce	1,099	9,077	7,465	6,369	10,271	2,515	6,700	4,134	--	3,218	1,933	1,754	1,525	--	56,060
Total softwoods	89,796	161,714	154,309	109,304	107,343	67,190	56,957	32,983	38,936	18,683	12,318	12,132	6,155	--	867,820
Aspen	15,953	28,632	30,975	10,807	10,614	2,757	876	835	--	--	--	--	--	--	101,449
Cottonwood	--	876	1,230	--	2,508	380	1,266	1,554	1,055	1,650	5,450	3,338	7,424	--	26,731
Total hardwoods	15,953	29,508	32,205	10,807	13,122	3,137	2,142	2,389	1,055	1,650	5,450	3,338	7,424	--	128,180
All species	105,749	191,222	186,514	120,111	120,465	70,327	59,099	35,372	39,991	20,333	17,768	15,470	13,579	--	996,000

Table 23--Net volume of sawtimber (International 4-inch rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1984

Species	Diameter class (inches at breast height)												All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
----- Thousand board feet, International 4-inch rule -----													
Douglas-fir	35,989	43,187	18,932	34,121	45,607	21,463	79,079	13,649	28,155	15,138	--	--	335,320
Ponderosa pine	143,563	175,855	239,220	162,672	149,437	124,515	82,832	70,243	14,117	42,016	25,098	--	1,229,568
Lodgepole pine	201,333	161,459	70,723	55,160	33,886	6,088	7,909	--	--	--	--	--	536,558
Limber pine	48,253	30,620	49,516	56,922	25,137	--	--	--	15,531	--	--	--	225,979
Subalpine fir	70,178	20,572	82,935	17,914	7,734	--	39,555	--	--	--	--	--	238,888
Engelmann spruce	21,854	29,952	50,758	12,373	33,448	21,148	--	17,577	10,936	10,068	8,877	--	216,991
Total softwoods	521,170	461,645	512,084	339,162	295,249	173,214	209,375	101,469	68,739	67,222	33,975	--	2,783,304
Aspen	XXXXX	51,514	52,483	13,707	4,348	4,111	--	--	--	--	--	--	126,163
Cottonwood	XXXXX	--	12,249	1,824	6,045	7,139	4,732	7,375	24,503	15,094	34,080	--	113,041
Total hardwoods	XXXXX	51,514	64,732	15,531	10,393	11,250	4,732	7,375	24,503	15,094	34,080	--	239,204
All species	521,170	513,159	576,816	354,693	305,642	184,464	214,107	108,844	93,242	82,316	68,055	--	3,022,508

Table 24--Net volume of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1984

Species	Diameter class (inches at breast height)												All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
----- Thousand board feet, Scribner rule -----													
Douglas-fir	31,921	37,457	16,021	27,938	38,403	18,139	68,387	12,147	25,058	13,473	--	--	288,944
Ponderosa pine	111,614	142,536	203,222	140,581	130,690	109,396	73,105	62,201	12,499	37,307	22,317	--	1,045,468
Lodgepole pine	173,625	137,061	59,135	46,926	29,307	5,185	7,022	--	--	--	--	--	458,261
Limber pine	40,020	26,710	41,867	47,744	21,244	--	--	--	13,822	--	--	--	191,407
Subalpine fir	61,890	17,649	68,244	14,639	6,228	--	34,686	--	--	--	--	--	203,336
Engelmann spruce	19,450	25,183	41,634	10,117	27,009	18,217	--	15,644	9,733	8,960	7,900	--	183,847
Total softwoods	438,520	386,596	430,123	287,945	252,881	150,937	183,200	89,992	61,112	59,740	30,217	--	2,371,263
Aspen	XXXX	44,218	44,390	11,492	3,671	3,489	--	--	--	--	--	--	107,260
Cottonwood	XXXX	--	9,758	1,446	5,273	6,115	4,123	6,543	21,807	13,434	30,331	--	98,830
Total hardwoods	XXXX	44,218	54,148	12,938	8,944	9,604	4,123	6,543	21,807	13,434	30,331	--	206,090
All species	438,520	430,814	484,271	300,883	261,825	160,541	187,323	96,535	82,919	73,174	60,548	--	2,577,353



Table 25--Net volume of timber on timberland outside National  
Forests by class of timber, and softwoods and hardwoods  
in central-southeastern Wyoming, 1984

Class of timber	Softwoods	Hardwoods	Total
- - - - Thousand cubic feet - - - -			
Sawtimber trees:			
Sawlog portion	544,221	38,526	582,747
Upper-stem portion	72,089	11,989	84,078
Total	616,310	50,515	666,825
Poletimber trees	251,509	77,666	329,175
All growing-stock trees	867,819	128,181	996,000
Rough cull trees	2,729	647	3,376
Rotten cull trees	1,412	2,329	3,741
Salvable dead trees	48,133	10,415	58,548
All timber	920,093	141,572	1,061,665



Table 28--Net volume of sawtimber (Scribner rule) on timberland outside National Forests by forest type and species in central-southeastern Wyoming, 1984

Forest type	Species										
	Douglas- fir	Ponderosa pine	Lodgepole pine	Limber pine	Subalpine fir	Engelmann spruce	Total softwoods	Aspen	Cotton- wood	Total hardwoods	All species
							Thousand board feet, Scribner rule				
Douglas-fir	111,517	--	--	7,224	--	--	118,741	--	--	--	118,741
Ponderosa pine	27,234	988,087	--	1,812	--	--	1,017,133	--	--	--	1,017,133
Lodgepole pine	2,876	8,631	362,675	5,444	14,270	--	393,896	--	--	--	393,896
Limber pine	147,317	32,922	15,547	167,155	3,236	3,384	369,561	--	--	--	369,561
Spruce-fir	--	8,142	46,632	9,772	181,555	92,388	338,489	15,998	--	15,998	354,487
Spruce	--	--	13,198	--	--	83,989	97,187	--	--	--	97,187
Aspen	--	7,686	20,208	--	4,275	4,086	36,255	91,262	--	91,262	127,517
Cottonwood	--	--	--	--	--	--	--	--	98,831	98,831	98,831
All types	288,944	1,045,468	458,260	191,407	203,336	183,847	2,371,262	107,260	98,831	206,091	2,577,353



Table 29--Net annual growth of growing stock on timberland outside  
National Forests by species and ownership class in  
central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
	- - - - - <u>Thousand cubic feet</u> - - - - -		
Douglas-fir	1,541	-41 <sup>(1)</sup>	1,500
Ponderosa pine	1,334	3,937	5,271
Lodgepole pine	1,851	4,374	6,225
Limber pine	1,095	585	1,680
Subalpine fir	1,379	993	2,372
Engelmann spruce	1,066	386	1,452
Total softwoods	8,266	10,234	18,500
Aspen	357	1,247	1,604
Cottonwood	--	358	358
Total hardwoods	357	1,605	1,962
All species	8,623	11,839	20,462

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.

Table 30--Net annual growth of sawtimber (International  $\frac{1}{4}$ -inch rule) on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- Thousand board feet, International $\frac{1}{4}$ -inch rule -			
Douglas-fir	9,047	-934 <sup>(1)</sup>	8,113
Ponderosa pine	5,676	18,323	23,999
Lodgepole pine	7,706	10,578	18,284
Limber pine	2,290	1,820	4,110
Subalpine fir	9,911	2,315	12,226
Engelmann spruce	3,656	1,657	5,313
Total softwoods	38,286	33,759	72,045
Aspen	181	-22	159
Cottonwood	--	2,839	2,839
Total hardwoods	181	2,817	2,998
All species	38,467	36,576	75,043

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.

Table 31--Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		Total
	Other public	Private	
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	<hr/>		
	- - - Thousand board feet, Scribner rule - - -		
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Douglas-fir	7,831	-698 <sup>(1)</sup>	7,133
Ponderosa pine	4,941	15,776	20,717
Lodgepole pine	6,754	9,190	15,944
Limber pine	1,757	1,697	3,454
Subalpine fir	8,612	1,945	10,557
Engelmann spruce	3,043	1,349	4,392
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Total softwoods	32,938	29,259	62,197
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Aspen	145	-36	109
Cottonwood	--	2,547	2,547
	<hr/>		
Total hardwoods	145	2,511	2,656
	<hr/>		
All species	33,083	31,770	64,853

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.



Table 32--Net annual growth of growing stock on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)														All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+		
	Thousand cubic feet														
Douglas-fir	692	336	299	342	73	82	55	-522 <sup>(1)</sup>	97	9	23	14	--	1,500	
Ponderosa pine	1,137	827	1,147	690	366	469	148	243	83	90	17	29	24	5,270	
Lodgepole pine	2,817	1,559	993	567	141	63	64	16	5	--	--	--	--	6,225	
Limber pine	1,075	191	253	-14	91	37	43	--	--	--	4	--	--	1,680	
Subalpine fir	471	558	716	117	361	45	27	--	77	--	--	--	--	2,372	
Engelmann spruce	64	298	260	130	250	40	197	91	--	65	21	18	19	1,453	
Total softwoods	6,256	3,769	3,668	1,832	1,282	736	534	-172	262	164	65	61	43	18,500	
Aspen	615	655	397	-303	193	30	7	10	--	--	--	--	--	1,604	
Cottonwood	--	-61	-197	--	26	4	35	53	9	63	165	66	195	358	
Total hardwoods	615	594	200	-303	219	34	42	63	9	63	165	66	195	1,962	
All species	6,871	4,363	3,868	1,529	1,501	770	576	-109	271	227	230	127	238	20,462	

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.

Table 33--Net annual growth of sawtimber (International 1/4-inch rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)												All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
----- Thousand board feet, International 1/4-inch rule -----													
Douglas-fir	6,828	1,988	423	469	316	-2,805 <sup>(1)</sup>	612	54	141	87	--	8,113	
Ponderosa pine	11,084	4,104	2,484	2,698	942	1,354	459	496	92	157	129	23,999	
Lodgepole pine	13,231	3,438	844	328	331	86	27	--	--	--	--	18,285	
Limber pine	3,041	124	486	194	237	--	--	--	28	--	--	4,110	
Subalpine fir	8,787	654	1,930	235	139	--	481	--	--	--	--	12,226	
Engelmann spruce	742	722	1,335	212	1,019	514	--	405	131	112	121	5,313	
Total softwoods	43,713	11,030	7,502	4,136	2,984	-851	1,579	955	392	356	250	72,046	
Aspen	XXXXX	-1,140	1,052	167	34	46	--	--	--	--	--	159	
Cottonwood	XXXXX	--	123	16	146	217	37	276	768	315	940	2,838	
Total hardwoods	XXXXX	-1,140	1,175	183	180	263	37	276	768	315	940	2,997	
All species	43,713	9,890	8,677	4,319	3,164	-588	1,616	1,231	1,160	671	1,190	75,043	

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.

Table 34.--Net annual growth of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)												All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
	- - - - - Thousand board feet, Scribner rule - - - - -												
Douglas-fir	6,127	1,584	332	369	289	-2,390 <sup>(1)</sup>	570	48	126	78	--	7,133	
Ponderosa pine	8,888	3,857	2,287	2,416	866	1,212	411	444	82	140	115	20,718	
Lodgepole pine	11,633	2,851	726	313	315	81	25	--	--	--	--	15,944	
Limber pine	2,489	154	402	177	207	--	--	--	25	--	--	3,454	
Subalpine fir	7,741	541	1,514	184	109	--	467	--	--	--	--	10,556	
Engelmann spruce	661	567	1,049	166	801	464	--	360	117	99	108	4,392	
Total softwoods	37,539	9,554	6,310	3,625	2,587	-633	1,473	852	350	317	223	62,197	
Aspen	XXXX	-1,004	899	145	29	40	--	--	--	--	--	109	
Cottonwood	XXXX	--	116	16	135	201	34	246	683	280	836	2,547	
Total hardwoods	XXXX	-1,004	1,015	161	164	241	34	246	683	280	836	2,656	
All species	37,539	8,550	7,325	3,786	2,751	-392	1,507	1,098	1,033	597	1,059	64,853	

<sup>1</sup>Net annual growth is negative when annual mortality exceeds gross annual growth.



Table 35--Annual mortality of growing stock on timberland outside  
National Forests by species and ownership class in  
central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- - - - - <u>Thousand cubic feet</u> - - - - -			
Douglas-fir	--	564	564
Ponderosa pine	689	254	943
Lodgepole pine	--	149	149
Limber pine	493	156	649
Subalpine fir	--	76	76
Engelmann spruce	--	--	--
Total softwoods	1,182	1,199	2,381
Aspen	528	848	1,376
Cottonwood	--	353	353
Total hardwoods	528	1,201	1,729
All species	1,710	2,400	4,110

Table 36--Annual mortality of sawtimber (International 4-inch rule) on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- Thousand board feet, International 4-inch rule -			
Douglas-fir	--	3,059	3,059
Ponderosa pine	2,011	1,033	3,044
Lodgepole pine	--	--	--
Limber pine	812	--	812
Subalpine fir	--	--	--
Engelmann spruce	--	--	--
Total softwoods	2,823	4,092	6,915
Aspen	925	1,592	2,517
Cottonwood	--	--	--
Total hardwoods	925	1,592	2,517
All species	3,748	5,684	9,432

Table 37--Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
- - - - Thousand board feet, Scribner rule - - - -			
Douglas-fir	--	2,608	2,608
Ponderosa pine	1,742	847	2,589
Lodgepole pine	--	--	--
Limber pine	696	--	696
Subalpine fir	--	--	--
Engelmann spruce	--	--	--
Total softwoods	2,438	3,455	5,893
Aspen	796	1,371	2,167
Cottonwood	--	--	--
Total hardwoods	796	1,371	2,167
All species	3,234	4,826	8,060

Table 38--Annual mortality of growing stock on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)														All classes
	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
	Thousand cubic feet														
Douglas-fir	--	--	--	--	--	--	--	565	--	--	--	--	--	565	
Ponderosa pine	--	287	--	104	360	--	191	--	--	--	--	--	--	942	
Lodgepole pine	149	--	--	--	--	--	--	--	--	--	--	--	--	149	
Limber pine	82	364	--	203	--	--	--	--	--	--	--	--	--	649	
Subalpine fir	76	--	--	--	--	--	--	--	--	--	--	--	--	76	
Engelmann spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Total softwoods	307	651	--	307	360	--	191	565	--	--	--	--	--	2,381	
Aspen	186	340	306	544	--	--	--	--	--	--	--	--	--	1,376	
Cottonwood	--	78	275	--	--	--	--	--	--	--	--	--	--	353	
Total hardwoods	186	418	581	544	--	--	--	--	--	--	--	--	--	1,729	
All species	493	1,069	581	851	360	--	191	565	--	--	--	--	--	4,110	



Table 39--Annual mortality of sawtimber (International 4-inch rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)												All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
----- Thousand board feet, International 4-inch rule -----													
Douglas-fir	--	--	--	--	--	3,059	--	--	--	--	--	--	3,059
Ponderosa pine	--	324	1,743	--	977	--	--	--	--	--	--	--	3,044
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--
Limber pine	--	812	--	--	--	--	--	--	--	--	--	--	812
Subalpine fir	--	--	--	--	--	--	--	--	--	--	--	--	--
Engelmann spruce	--	--	--	--	--	--	--	--	--	--	--	--	--
Total softwoods	--	1,136	1,743	--	977	3,059	--	--	--	--	--	--	6,915
Aspen	XXXX	2,517	--	--	--	--	--	--	--	--	--	--	2,517
Cottonwood	XXXX	--	--	--	--	--	--	--	--	--	--	--	--
Total hardwoods	XXXX	2,517	--	--	--	--	--	--	--	--	--	--	2,517
All species	--	3,653	1,743	--	977	3,059	--	--	--	--	--	--	9,432

Table 40--Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and diameter class in central-southeastern Wyoming, 1983

Species	Diameter class (inches at breast height)											All classes
	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+	
	Thousand board feet, Scribner rule											
Douglas-fir	--	--	--	--	--	2,608	--	--	--	--	--	2,608
Ponderosa pine	--	241	1,498	--	851	--	--	--	--	--	--	2,590
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--
Limber pine	--	696	--	--	--	--	--	--	--	--	--	696
Subalpine fir	--	--	--	--	--	--	--	--	--	--	--	--
Engelmann spruce	--	--	--	--	--	--	--	--	--	--	--	--
Total softwoods	--	937	1,498	--	851	2,608	--	--	--	--	--	5,894
Aspen	XXXX	2,166	--	--	--	--	--	--	--	--	--	2,166
Cottonwood	XXXX	--	--	--	--	--	--	--	--	--	--	--
Total hardwoods	XXXX	2,166	--	--	--	--	--	--	--	--	--	2,166
All species	--	3,103	1,498	--	851	2,608	--	--	--	--	--	8,060

Table 41--Annual mortality of growing stock on timberland outside National Forests by species and cause of death in central-southeastern Wyoming, 1983

Species	Cause of death							
	Insects	Disease	Fire	Animal	Weather	Suppression	Logging	Unknown <sup>1</sup>
	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
					Thousand cubic feet			
Douglas-fir	--	--	--	--	565	--	--	--
Ponderosa pine	315	--	627	--	--	--	--	565
Lodgepole pine	--	--	149	--	--	--	--	942
Limber pine	290	--	--	--	203	--	--	149
Subalpine fir	--	--	--	--	--	--	--	156
								76
Total softwoods	605	--	776	--	768	--	--	232
								2,381
Aspen	--	740	--	528	108	--	--	--
Cottonwood	--	--	--	353	--	--	--	--
								1,376
Total hardwoods	--	740	--	881	108	--	--	--
								1,729
All species	605	740	776	881	876	--	--	232
								4,110

<sup>1</sup>Because many destructive agents often attack trees in concert or in succession, it is often difficult to identify the actual causal agent. When the primary cause of death cannot be precisely determined, it is listed as unknown.

Table 42--Annual mortality of sawtimber (International 1/4-inch rule) on timberland outside National Forests by species and cause of death in central-southeastern Wyoming, 1983

Species	Cause of death								Total
	Insects	Disease	Fire	Animal	Weather	Suppression	Logging	Unknown	
----- Thousand board feet, International 1/4-inch rule -----									
Douglas-fir	--	--	--	--	3,059	--	--	--	3,059
Ponderosa pine	560	--	2,483	--	--	--	--	--	3,043
Lodgepole pine	--	--	--	--	--	--	--	--	--
Limber pine	--	--	--	--	812	--	--	--	812
Subalpine fir	--	--	--	--	--	--	--	--	--
Total softwoods	560	--	2,483	--	3,871	--	--	--	6,914
Aspen	--	1,592	--	926	--	--	--	--	2,518
Cottonwood	--	--	--	--	--	--	--	--	--
Total hardwoods	--	1,592	--	926	--	--	--	--	2,518
All species	560	1,592	2,483	926	3,871	--	--	--	9,432

Table 43--Annual mortality of sawtimber (Scribner rule) on timberland outside National Forests by species and cause of death in central-southeastern Wyoming, 1983

Species	Cause of death								Total
	Insects	Disease	Fire	Animal	Weather	Suppression	Logging	Unknown	
----- Thousand board feet, Scribner rule -----									
Douglas-fir	--	--	--	--	2,608	--	--	--	2,608
Ponderosa pine	484	--	2,106	--	--	--	--	--	2,590
Lodgepole pine	--	--	--	--	--	--	--	--	--
Limber pine	--	--	--	--	696	--	--	--	696
Subalpine fir	--	--	--	--	--	--	--	--	--
Total softwoods	484	--	2,106	--	3,304	--	--	--	5,894
Aspen	--	1,371	--	795	--	--	--	--	2,166
Cottonwood	--	--	--	--	--	--	--	--	--
Total hardwoods	--	1,371	--	795	--	--	--	--	2,166
All species	484	1,371	2,106	795	3,304	--	--	--	8,060



Table 44--Area of woodland outside National Forests by forest type and ownership class in central-southeastern Wyoming, 1984

Forest type	Ownership class		
	Other public	Private	Total
	- - - - - Acres - - - - -		
Juniper	183,175	70,200	253,375
Total woodland softwoods	183,175	70,200	253,375
Mountain brush <sup>1</sup>	7,632	--	7,632
Riparian	--	20,057	20,057
Total woodland hardwoods	7,632	20,057	27,689
All types	190,807	90,257	281,064

<sup>1</sup>Mountain brush and riparian hardwood forest types are shown separately on this table only. These types are included in the "other" forest type category on the remaining woodland tables.

Table 45--Area of woodland outside National Forests by ownership class, forest type, and productivity class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Productivity class		
		High	Low	All classes
		- - - - - Acres - - - - -		
Other public:	Juniper	106,852	76,323	183,175
	Other	--	7,632	7,632
	Total	106,852	83,955	190,807
Private:	Juniper	30,086	40,114	70,200
	Other	20,057	--	20,057
	Total	50,143	40,114	90,257
Total:	Juniper	136,938	116,437	253,375
	Other	20,057	7,632	27,689
	Total	156,995	124,069	281,064

Table 46--Area of woodland outside National Forests by ownership class, forest type, and volume class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Volume class				All classes
		0 - 499 cu ft/acre	500-999 cu ft/acre	1,000+ cu ft/acre		
<hr/>						
<div>----- Acres -----</div> <hr/>						
Other public:	Juniper	152,646	30,529	--	--	183,175
	Other	7,632	--	--	--	7,632
<hr/>						
	Total	160,278	30,529	--	--	190,807
<hr/>						
Private:	Juniper	60,171	10,029	--	--	70,200
	Other	--	--	20,057	--	20,057
<hr/>						
	Total	60,171	10,029	20,057	--	90,257
<hr/>						
Total:	Juniper	212,817	40,558	--	--	253,375
	Other	7,632	--	20,057	--	27,689
<hr/>						
	Total	220,449	40,558	20,057	--	281,064

Table 47--Number of trees on woodland outside National Forests by ownership class, species, and diameter class in central-southeastern Wyoming, 1984

Ownership class and species	Two-inch diameter at root collar class																All classes
	1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
	----- Thousand trees -----																
Other public:																	
Juniper	8,396	5,075	4,656	3,549	2,938	2,748	1,870	1,183	1,412	458	305	572	191	76	38	33,467	
Mtn. mahogany	9,159	649	534	229	76	--	76	--	--	--	--	--	--	--	--	10,723	
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Total	17,555	5,724	5,190	3,778	3,014	2,748	1,946	1,183	1,412	458	305	572	191	76	38	44,190	
Private:																	
Juniper	8,023	3,009	2,256	1,655	1,203	501	602	301	401	351	--	201	100	--	--	18,603	
Mtn. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Other	1,003	--	401	1,203	602	1,404	602	--	--	201	201	--	--	--	201	5,818	
Total	9,026	3,009	2,657	2,858	1,805	1,905	1,204	301	401	552	201	201	100	--	201	24,421	
Total:																	
Juniper	16,419	8,084	6,912	5,204	4,141	3,249	2,472	1,484	1,813	809	305	773	291	76	38	52,070	
Mtn. mahogany	9,159	649	534	229	76	--	76	--	--	--	--	--	--	--	--	10,723	
Other	1,003	--	401	1,203	602	1,404	602	--	--	201	201	--	--	--	201	5,818	
Total	26,581	8,733	7,847	6,636	4,819	4,653	3,150	1,484	1,813	1,010	506	773	291	76	239	68,611	

Table 48--Net volume of woodland outside National Forests by species  
and ownership class in central-southeastern Wyoming, 1984

Species	Ownership class			Total
	Other public	Private		
	----- Thousand cubic feet -----			
Ponderosa pine	--	1,346		1,346
Limber pine	2,170	--		2,170
Woodland softwoods	38,518	20,334		58,852
Woodland hardwoods	536	53,766		54,302
All species	41,224	75,446		116,670



Table 49--Net volume of woodland species on woodland outside National Forests by ownership class, species, and diameter class in central-southeastern Wyoming, 1984

Ownership class and species	Two-inch diameter at root collar class															All classes
	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+		
----- Thousand cubic feet -----																
Other public:																
Juniper	908	2,022	2,600	3,615	4,628	4,612	4,312	4,004	2,787	2,181	5,302	1,256	191	100	38,518	
Mtn. mahogany	73	130	162	16	--	155	--	--	--	--	--	--	--	--	536	
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	981	2,152	2,762	3,631	4,628	4,767	4,312	4,004	2,787	2,181	5,302	1,256	191	100	39,054	
Private:																
Juniper	839	1,375	2,010	2,118	1,185	2,486	917	2,783	2,198	--	3,398	1,025	--	--	20,334	
Mtn. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other	--	254	3,800	2,939	14,089	6,398	--	--	4,945	6,182	--	--	--	15,159	53,766	
Total	839	1,629	5,810	5,057	15,274	8,884	917	2,783	7,143	6,182	3,398	1,025	--	15,159	74,100	
Total:																
Juniper	1,747	3,397	4,610	5,733	5,813	7,098	5,229	6,787	4,985	2,181	8,700	2,281	191	100	58,852	
Mtn. mahogany	73	130	162	16	--	155	--	--	--	--	--	--	--	--	536	
Other	--	254	3,800	2,939	14,089	6,398	--	--	4,945	6,182	--	--	--	15,159	53,766	
Total	1,820	3,781	8,572	8,688	19,902	13,651	5,229	6,787	9,930	8,363	8,700	2,281	191	15,259	113,154	

Table 50--Net volume of woodland species on woodland outside National Forests by ownership class, forest type, and productivity class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Productivity class		
		High	Low	All classes
<hr/>				
- - - - <u>Thousand cubic feet</u> - - - -				
Other public:	Juniper	28,976	9,523	38,499
	Other	--	555	555
	Total	28,976	10,078	39,054
<hr/>				
Private:	Juniper	11,217	9,117	20,334
	Other	53,766	--	53,766
	Total	64,983	9,117	74,100
<hr/>				
Total:	Juniper	40,193	18,640	58,833
	Other	53,766	555	54,321
	Total	93,959	19,195	113,154

Table 51--Net volume of woodland species on woodland outside National Forests by ownership class, forest type, and volume class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Volume class			
		0 - 499 cu ft/acre	500-999 cu ft/acre	1,000+ cu ft/acre	All classes
<hr/>					
<div>- - - - - Thousand cubic feet - - - - -</div>					
Other public:	Juniper	23,025	15,474	--	38,499
	Other	555	--	--	555
	Total	23,580	15,474	--	39,054
<hr/>					
Private:	Juniper	12,955	7,379	--	20,334
	Other	--	--	53,766	53,766
	Total	12,955	7,379	53,766	74,100
<hr/>					
Total:	Juniper	35,980	22,853	--	58,833
	Other	555	--	53,766	54,321
	Total	36,535	22,853	53,766	113,154

Table 52--Net dead volume of woodland species on woodland outside National Forests by ownership class, species, and diameter class in central-southeastern Wyoming, 1984

Ownership class and species	Two-inch diameter at root collar class														All classes
	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	29.0+	
----- Thousand cubic feet -----															
Other public:															
Juniper	13	35	136	413	389	396	1,252	920	440	234	875	95	114	1,312	6,624
Mtn. mahogany	3	7	--	3	--	--	--	--	--	--	--	--	--	--	13
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	16	42	136	416	389	396	1,252	920	440	234	875	95	114	1,312	6,637
Private:															
Juniper	6	60	17	43	444	47	468	78	145	--	--	--	--	--	1,308
Mtn. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other	--	191	627	1,071	--	110	1,556	--	247	7,270	--	--	--	758	11,830
Total	6	251	644	1,114	444	157	2,024	78	392	7,270	--	--	--	758	13,138
Total:															
Juniper	19	95	153	456	833	443	1,720	998	585	234	875	95	114	1,312	7,932
Mtn. mahogany	3	7	--	3	--	--	--	--	--	--	--	--	--	--	13
Other	--	191	627	1,071	--	110	1,556	--	247	7,270	--	--	--	758	11,830
Total	22	293	780	1,530	833	553	3,276	998	832	7,504	875	95	114	2,070	19,775



Table 53--Net dead volume of woodland species on woodland outside National Forests by ownership class, forest type, and productivity class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Productivity class			All classes
		High	Low		
- - - Thousand cubic feet - - -					
Other public:	Juniper	4,724	1,736		6,460
	Other	--	177		177
	Total	4,724	1,913		6,637
Private:	Juniper	728	580		1,308
	Other	11,830	--		11,830
	Total	12,558	580		13,138
Total:	Juniper	5,452	2,316		7,768
	Other	11,830	177		12,007
	Total	17,282	2,493		19,775

Table 54--Net dead volume of woodland species on woodland outside National Forests by ownership class, forest type, and volume class in central-southeastern Wyoming, 1984

Ownership class	Forest type	Volume class			
		0 - 499 cu ft/acre	500-999 cu ft/acre	1,000+ cu ft/acre	All classes
<hr/>					
- - - - - <u>Thousand cubic feet</u> - - - - -					
Other public:	Juniper	4,334	2,126	--	6,460
	Other	177	--	--	177
	Total	4,511	2,126	--	6,637
<hr/>					
Private:	Juniper	1,218	90	--	1,308
	Other	--	--	11,830	11,830
	Total	1,218	90	11,830	13,138
<hr/>					
Total:	Juniper	5,552	2,216	--	7,768
	Other	177	--	11,830	12,007
	Total	5,729	2,216	11,830	19,775

Table 55--Net annual growth on woodland outside National Forests by species and ownership class in central-southeastern Wyoming, 1983

Species	Ownership class		
	Other public	Private	Total
	<hr/>		
	- - - - - <u>Thousand cubic feet</u> - - - - -		
Ponderosa pine	--	13	13
Limber pine	19	--	19
Woodland softwoods	445	178	623
Woodland hardwoods	6	1,008	1,014
	<hr/>		
All species	470	1,199	1,669

Table 56--Net annual growth of woodland species on woodland outside National Forests by ownership class, species, and diameter class in central-southeastern Wyoming, 1983

Ownership class and species	Two-inch diameter at root collar class															All classes
	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0-24.9	25.0-26.9	27.0-28.9	29.0+		
----- Thousand cubic feet -----																
Other public:																
Juniper	56	59	40	46	53	58	41	23	26	12	25	5	1	(1)	445	
Mtn. mahogany	1	2	2	(1)	--	1	--	--	--	--	--	--	--	--	6	
Other	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	57	61	42	46	53	59	41	23	26	12	25	5	1	--	451	
Private:																
Juniper	46	24	60	27	-60	22	8	17	10	--	19	5	--	--	178	
Mtn. mahogany	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other	--	20	192	174	312	156	--	--	37	41	--	--	--	76	1,008	
Total	46	44	252	201	252	178	8	17	47	41	19	5	--	76	1,186	
Total:																
Juniper	102	83	100	73	-7	80	49	40	36	12	44	10	1	--	623	
Mtn. mahogany	1	2	2	--	--	1	--	--	--	--	--	--	--	--	6	
Other	--	20	192	174	312	156	--	--	37	41	--	--	--	76	1,008	
Total	103	105	294	247	305	237	49	40	73	53	44	10	1	76	1,637	

<sup>1</sup>Less than 0.5 thousand cubic feet.



Table 57--Net annual growth of woodland species on woodland outside  
National Forests by ownership class, forest type, and  
productivity class in central-southeastern Wyoming, 1983

Ownership class	Forest type	Productivity class		
		High	Low	All classes
<hr/>				
- - - - <u>Thousand cubic feet</u> - - - -				
Other public:	Juniper	338	109	447
	Other	--	4	4
	Total	338	113	451
<hr/>				
Private:	Juniper	17	161	178
	Other	1,008	--	1,008
	Total	1,025	161	1,186
<hr/>				
Total:	Juniper	355	270	625
	Other	1,008	4	1,012
	Total	1,363	274	1,637

Table 58--Net annual growth of woodland species on woodland outside National Forests by ownership class, forest type, and volume class in central-southeastern Wyoming, 1983

Ownership class	Forest type	Volume class			
		0 - 499 cu ft/acre	500-999 cu ft/acre	1,000+ cu ft/acre	All classes
- - - - - <u>Thousand cubic feet</u> - - - - -					
Other public:	Juniper	295	152	--	447
	Other	4	--	--	4
	Total	299	152	--	451
Private:	Juniper	127	51	--	178
	Other	--	--	1,008	1,008
	Total	127	51	1,008	1,186
Total:	Juniper	422	203	--	625
	Other	4	--	1,008	1,012
	Total	426	203	1,008	1,637

Table 59--Number of fenceposts on woodland outside National Forests by ownership class, species, and type of post in central-southeastern Wyoming, 1984

Ownership class	Species	Type of post		Total
		Line	Corner	
- - - - <u>Thousand fenceposts</u> - - - -				
Other public:	Juniper	6,405	3,056	9,461
Private:	Juniper	6,668	2,781	9,449
Total	Juniper	13,073	5,837	18,910











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Green, Alan W.; Conner, Roger C. 1988. Timberland and woodland resources outside National Forests in central and southeastern Wyoming, 1984. Resour. Bull. INT-53. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 58 p.

Highlights the results of forest inventory of the 12 counties in central and southeastern Wyoming. Presents area, volume, growth, and mortality statistics for both timberland and woodlands outside the National Forests as of 1984.

**KEYWORDS:** softwoods, hardwoods, growing-stock and sawtimber volumes, net annual growth, harvest

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## INTERMOUNTAIN RESEARCH STATION

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